DEPARTMENT OF ECOLOGY
State of Washington

Industrial Stormwater General Permit Annual Report Form

Permit No. WAR-000139
Site Name: Alaskan Copper Works
Site County: King

Use this form to submit your annual report to Ecology. This form is not protected. Use your mouse or F11 to navigate through the fields. Do not change the text in this form. Attach corrective action documentation, and/or additional sheets if necessary. All facilities must submit a signed annual report each year on or before May 15th. Retain a copy of your submitted report onsite for Ecology review.

1. Benchmarks Exceeded

Did you exceed the benchmark for any parameter during the previous calendar year (Jan 1st – Dec 31st)? **Note**: If you sampled a parameter (other than pH or visible oil sheen) at a discharge point more than once during a quarter, the average of the sample results must be compared to the benchmark.

Yes ☒ - **Complete Sections 2 and 3 and sign and submit the form as described in Section 4.**

No ☐ - **Complete Section 2, skip Section 3, and sign and submit the form as described in Section 4.**

Include any additional comments here:

2. Stormwater Problems Identified At the Facility

Instructions: Based on the best available information, briefly describe any potential or actual stormwater pollution problem(s) you identified during the previous calendar year (Jan 1st – Dec 31st).

- Sources of available information may include (but may not be limited to): SWPPP reviews, audits made by consultants or providers of technical assistance, inspection reports or other notification made by federal/state/local authorities, visual observations, and/or your facility's monthly site inspections (self-inspections).
- For each problem identified, provide the date you discovered the problem (estimate if necessary).
- Do not include problems discovered through stormwater sampling. This information is covered in Section 3.

Date Problem Discovered: 2/11/10 **Describe the Problem:** Poor stormwater drainage in CB330001 was observed as evident by high stormwater levels near the top of the CB. Minor sheen observed in small areas of CB330001 and CB331707surface but was not observed in CB discharge.

Date Problem Discovered: 6/2/10 **Describe the Problem:** Some dirt was observed under fence, but accessible paved area was swept clean.

Date Problem Discovered: 8/31/10 **Describe the Problem:** Poor stormwater drainage in CB330001 was observed to cause CB insert filter to overflow and therefore not all stormwater was being treated by the filter.

Date Problem Discovered: 10/14/10 **Describe the Problem:** Poor stormwater drainage in CB330001 was observed as evident by high stormwater levels near the top of the CB. The catch basin insert for CB331707 was observed to be approximately 1/3 full of sediment.

3. Corrective Actions Planned or Taken

Instructions: Complete this section for each pollutant parameter (e.g., turbidity, copper) that exceeded a benchmark during the previous calendar year (Jan 1st – Dec 31st). The permit requires you to identify the condition triggering the need for corrective action review. To do this, indicate below which quarters had a sample result that exceeded the benchmark. If more than one sample was taken at a sample location, indicate which quarters had an average sample result that exceeded the benchmark. Note: If you exceeded the benchmark for more than one parameter (e.g., turbidity and zinc), make additional copies of Section 3 and complete one for each parameter.

Pollutant Parameter: Copper benchmark was exceeded during the following quarters (check all that apply):

☒ 1st Quarter (January, February, March)

☒ 2nd Quarter (April, May, June)

☒ 3rd Quarter (July, August, September)

☒ 4th Quarter (October, November, December)

Instructions: For the pollutant parameter above, summarize any Level 1, 2, or 3 corrective actions completed during the previous calendar year and include the dates you completed the corrective actions.

☒ Level 1 corrective action

Describe the additional *operational source control* BMPs you implemented (Permit Condition S8.B):

First Quarter 2010:

- Operational BMP implemented: Truck traffic was reduced with the goal of eventually eliminating truck traffic between buildings 3317 and 3405. Reduced truck traffic will help to reduce known sources of metals (copper from vehicle brake pads, zinc from tire wear) and will help to reduce onsite tracking of dusts from crossing 6th Avenue. Dirt and dust picked up from 6th Avenue may contribute to turbidity and also contribute copper and zinc from brake pad and tire wear on this heavily used public roadway.

Date corrective action was completed: May 5, 2010

Second Quarter 2010:

- Operational BMP implemented: Previous samples from roof drain downspouts were analyzed as part of an ongoing operational BMP source control study during first and second quarters of 2010. The analysis resulted in installation of treatment BMPs (see Level Three Corrective Action below).

Date corrective action was completed: This metals source control evaluation was completed during second quarter 2010.

Third Quarter 2010:

- Operational BMP implemented: During heavy rainfall months (September through April), inserts are to be replaced or cleaned out more frequently and at least once every 2 months.

Date corrective action was completed: Corrective actions described here were completed and/or SWPPP updated prior to or on: November 11, 2010.

Fourth Quarter 2010:

- Operational BMP implemented: Starting November 2010 (note: 4th quarter samples were collected 10/14/10) for any future quarterly stormwater sampling event at CB 331707 in which copper or zinc are found to be above benchmark values, the effluent of the downspout filter units and the planter barrels will be sampled. The filter elements will be replaced and/or the topsoil in the planter barrels will be replaced within 2 months of the receipt of effluent results if zinc or copper are above the benchmark value and if metals removal rate is less than 50%. Alternatively, the downspout filter elements and planter barrel topsoil could just be replaced rather than testing their effluent

Date corrective action was completed: Corrective actions described here were completed and/or SWPPP updated prior to or on: November 11, 2010.

☒ Level 2 corrective action

Describe the additional *structural source control* BMPs you implemented (Permit Condition S8.C):

- The following was added to the facility SWPPP: "If catch basins or storm drains are observed to not drain properly and contribute to turbidity and suspended solids, then inspect drain lines for debris or sediment blockage or broken piping. Clean and repair or replace storm drain lines as necessary to restore proper drainage." In addition, in September 2010 a storm drain video/cleaning contractor was hired to conduct storm drain video work and cleaning as necessary due to the lack of proper drainage out of Catch Basin 01 at Building 3300 (CB330001). The video inspection could not find any particularly large deposit of solids or other signs of storm drain blockage and therefore pipe cleaning was not determined to correct the issue of poor drainage (and possible backup of stormwater/solids from the City storm drain line) at that location. .

Date corrective action was completed: September 2010

☒ Level 3 corrective action (and Level 3 Response from 2005 Industrial Stormwater General Permit).

Describe the additional *treatment* BMPs you implemented (Permit Condition S8.D):

- Treatment BMP implemented: The facility implemented downspout filters with metal absorption filtration media and self-contained rain garden filtration units (stormwater planters) at select downspouts at Buildings 3317 and 3405. The two downspout metals adsorption units and the two planter rain garden barrels for downspout stormwater treatment were installed at Buildings 3317 and Building 3405 in May 2010. Downspout filters and self-contained rain garden filtration units (stormwater planters) have helped achieve benchmark values for turbidity and have reduced metals concentrations at the down-pipe official stormwater sampling location (CB 331707). Effluent testing from these individual treatment units has shown that these units are capable of effectively removing zinc and copper and are often capable of achieving the benchmark values as shown in the attached Table 1. Also, at Building 3300 and Building 3317 the more frequent cleaning (or replacement) of catch basin insert filters to remove accumulated solids has been implemented to improve stormwater treatment performance.
- See section below for Level Three Corrective Actions not yet completed.

Date corrective action was completed: 5/28/10.

Instructions: For the pollutant parameter listed above, describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, but have not yet been completed. Identify the date you expect to complete corrective actions.

☐ Level 2 corrective action

Describe the status of the corrective action:

- Past roof drain downspout testing at Building 3317 and 3405 indicated apparent zinc and copper sources from roofing material (possibly also including aerial deposition of urban roadway dust containing metals). Thus far it has been determined to be more cost effective to use stormwater treatment rather than a structural BMP (such as epoxy paint coating all of the roofs or replacement of the roofs). However, if continued and expanded stormwater treatment becomes too costly then Alaskan Copper will consider roof coating or replacement.
- No other structural source control measure (other than the completed storm drain line video inspection/repair described above) was deemed to be applicable.

Date you expect to complete corrective action: If it is decided to not proceed with an increased level of stormwater treatment and to perform structural (roof) source elimination, it will be implemented prior to the September 30, 2011 deadline for 2010 Level Two Corrective Actions.

☒ Level 3 Corrective Action

Describe the status of the corrective action:

- Treatment BMP implementation status: The treatment BMPs described in the January 28, 2010 (Jan 2010 Report) Level Three Response and Source Control Report, are still valid options and are being re-analyzed based on subsequent stormwater sampling data that have shown copper and zinc concentrations declining but still above benchmark values. Downspout filters and self-contained rain garden filtration units (stormwater planters) have helped achieve benchmark values for turbidity and have reduced metals concentrations. Effluent

testing from these treatment units has shown that effluent metals concentrations are variable but that these units are capable of effectively removing zinc and copper and capable of achieving the benchmark values. Therefore, expansion of the use of these treatment technologies is being considered. Additional BMPs being considered included roof encapsulation for CB331707, an adsorbent media catch basin insert filter for CB330001, and full replacement of catch basin insert filters (rather than just filter fabric cleaning) to be performed at least quarterly.

Date you expect to complete corrective action: Specific dates have not yet been determined but these treatment BMPs (or alternatively epoxy coating of building roofs to reduce/eliminate appartent zinc and copper sources from the roofs) will be installed as necessary prior to the September 30, 2011 deadline for 2010 Level Three Corrective Actions.

Pollutant Parameter: Zinc benchmark was exceeded during the following quarters (check all that apply):

☒ 1st Quarter (January, February, March)

☒ 2nd Quarter (April, May, June)

☒ 3rd Quarter (July, August, September)

☒ 4th Quarter (October, November, December)

Instructions: For the pollutant parameter above, summarize any Level 1, 2, or 3 corrective actions completed during the previous calendar year and include the dates you completed the corrective actions.

☒ Level 1 corrective action

Describe the additional *operational source control* BMPs you implemented (Permit Condition S8.B):

Note that the corrective actions employed for zinc have been the same as those employed for copper. Therefore, please refer to the copper section above for the information on BMPs implemented.

☒ Level 2 corrective action

Describe the additional *structural source control* BMPs you implemented (Permit Condition S8.C):

- **See copper section above for Level Two Corrective Actions completed.**

☒ Level 3 corrective action (and Level 3 Response from 2005 Industrial Stormwater General Permit).

Describe the additional *treatment* BMPs you implemented (Permit Condition S8.D):

- **See copper section above for Level Three Corrective Actions completed.**
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Instructions: For the pollutant parameter listed above, describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, but have not yet been completed. Identify the date you expect to complete corrective actions.

☐ Level 2 corrective action

Describe the status of the corrective action:

- **See copper section above for Level Two Corrective Actions not yet completed.**
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☒ Level 3 Corrective Action

Describe the status of the corrective action:

- **See copper section above for Level Three Corrective Actions not yet completed.**
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Pollutant Parameter: Turbidity benchmark was exceeded during the following quarters (check all that apply):

☒ 1st Quarter (January, February, March)

☐ 2nd Quarter (April, May, June)

☐ 3rd Quarter (July, August, September)

☐ 4th Quarter (October, November, December)

Instructions: For the pollutant parameter above, summarize any Level 1, 2, or 3 corrective actions completed during the previous calendar year and include the dates you completed the corrective actions.

☒ Level 1 corrective action

Describe the additional *operational source control* BMPs you implemented (Permit Condition S8.B):

First Quarter 2010:

- Operational BMP implemented: Truck traffic was reduced with the goal of eventually eliminated truck traffic between buildings 3317 and 3405. Reduced truck traffic will reduce onsite tracking of dusts from crossing 6th Avenue. Dirt and dust picked up from 6th Avenue may contribute to elevated turbidity.

Date corrective action was completed: May 5, 2010

☐ Level 2 corrective action

Describe the additional *structural source control* BMPs you implemented (Permit Condition S8.C):

Date corrective action was completed:

☐ Level 3 corrective action (and Level 3 Response from 2005 Industrial Stormwater General Permit).

Describe the additional *treatment* BMPs you implemented (Permit Condition S8.D):

- Treatment BMP implemented: Treatment BMPs were not required for turbidity because only a Level One Corrective Action was triggered for turbidity during 2010.

Date corrective action was completed:

Instructions: For the pollutant parameter listed above, describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, but have not yet been completed. Identify the date you expect to complete corrective actions.

☐ Level 2 corrective action

Describe the status of the corrective action:

Date you expect to complete corrective action:

☐ Level 3 Corrective Action

Describe the status of the corrective action:

Date you expect to complete corrective action:

Pollutant Parameter: Total Petroleum Hydrocarbons benchmark was exceeded during the following quarters (check all that apply):

☐ 1st Quarter (January, February, March)

☒ 2nd Quarter (April, May, June)

☐ 3rd Quarter (July, August, September)

☐ 4th Quarter (October, November, December)

Instructions: For the pollutant parameter above, summarize any Level 1, 2, or 3 corrective actions completed during the previous calendar year and include the dates you completed the corrective actions.

☒ Level 1 corrective action

Describe the additional *operational source control* BMPs you implemented (Permit Condition S8.B):

- Operational BMP implemented: This catch basin has been frequently observed to overflow due to poor drainage. The SWPPP was updated on August 11, 2010 to establish procedures for facility personnel to follow-up on apparent storm drain blockages. (A storm drain piping video inspection was completed in September 2010 to examine for any signs of pipe blockage).

Date corrective action was completed: (August 11, 2010)

☐ Level 2 corrective action

Describe the additional *structural source control* BMPs you implemented (Permit Condition S8.C):

Date corrective action was completed:

☐ Level 3 corrective action

Describe the additional *treatment* BMPs you implemented (Permit Condition S8.D):

Date corrective action was completed:

Instructions: For the pollutant parameter listed above, describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, but have not yet been completed. Identify the date you expect to complete corrective actions.

☐ Level 2 corrective action

Describe the status of the corrective action:

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Date you expect to complete corrective action:

☐ Level 3 Corrective Action

Describe the status of the corrective action:

Date you expect to complete corrective action:

4. Certification by Permittee

"I certify under penalty of law that this document and all attachments were prepared under my direction, or supervision, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

James Brown | Alaskan Copper & Brass Company | 3/30/11

Printed Name | **Company** | **Date**

Signature* James Brown

*** Federal regulations require this report to be signed by the following person, or a duly authorized representative:**

A. In the case of corporations, by a principal executive officer of at least the level of vice president.
B. In the case of a partnership, by a general partner of a partnership.
C. In the case of sole proprietorship, by the proprietor.
D. In the case of a municipality, state, federal, or other public facility: by either a principal executive officer or ranking elected official.

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to Ecology.
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

Please return this signed, original document to the address below. Make sure you retain a copy for your records.

Washington State Department of Ecology
Water Quality Program – Industrial Stormwater
PO Box 47696
Olympia, WA 98504-7696

If you have questions about this form, contact the following Ecology staff:

Location	Contact Name	Phone	E-mail
City of Seattle, Kitsap, Pierce, and Thurston counties	Josh Klimek	360-407-7451	josh.klimek@ecy.wa.gov
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Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Skagit, Snohomish, Spokane, Stevens, Walla, Whatcom, and Whitman counties	Shawn Hopkins	360-407-6442	shawn.hopkins@ecy.wa.gov
Benton, Chelan, Clallam, Clark, Cowlitz, Douglas, Grays Harbor, Jefferson, Kittitas, Klickitat, Lewis, Mason, Okanogan, Pacific, Skamania, Wahkiakum, and Yakima counties.	Joyce Smith	360-407-6858	joyce.smith@ecy.wa.gov

To ask about the availability of this document in a version for the visually impaired call the Water Quality Program at 360-407-6401. Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.